

State of Hawai'i
IMT

Transforming Government..

*Through Business and Information Technology
(IT)/Information Resource Management (IRM)*

University of Hawaii IT Management Club
April 26, 2012

**Sanjeev "Sonny" Bhagowalia
Chief Information Officer**

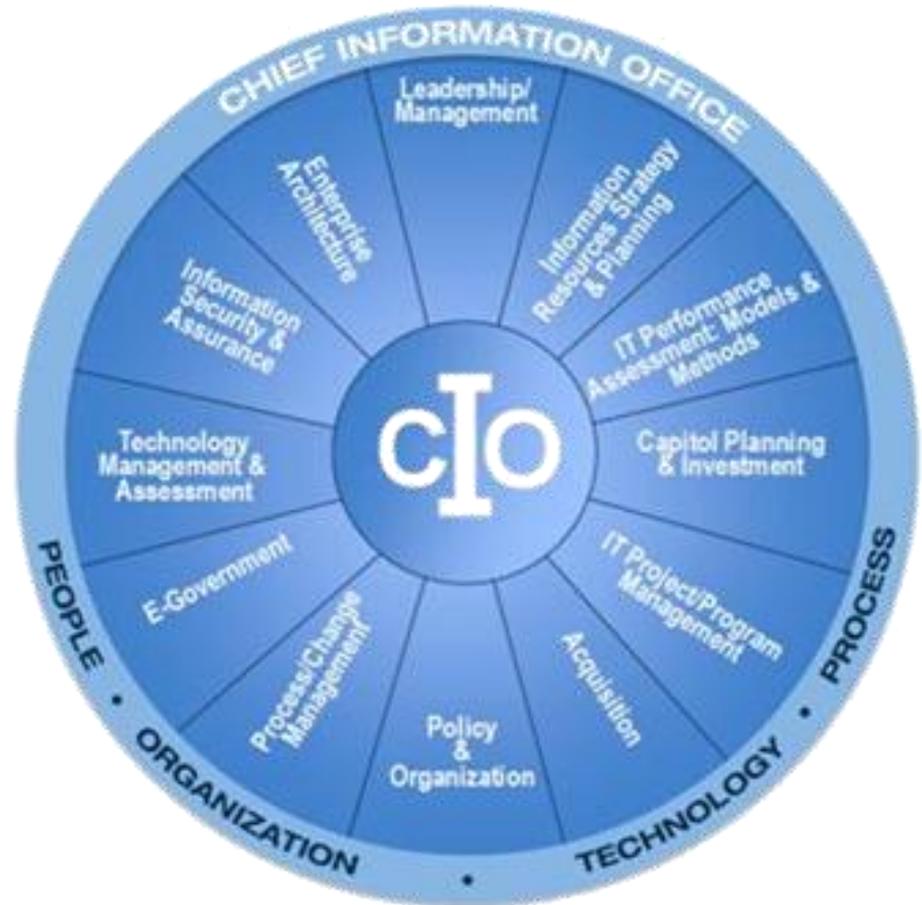
What is a CIO?



Source: DILBERT by Scott Adams

CIO Provides IT/IRM Leadership

- ▶ Develop, implement, and manage IT/IRM governance
- ▶ Establish and enforce policies and standards
- ▶ Create architectural requirements
- ▶ Provide statewide IT/IRM investment oversight



Source: <http://www.ndu.edu>

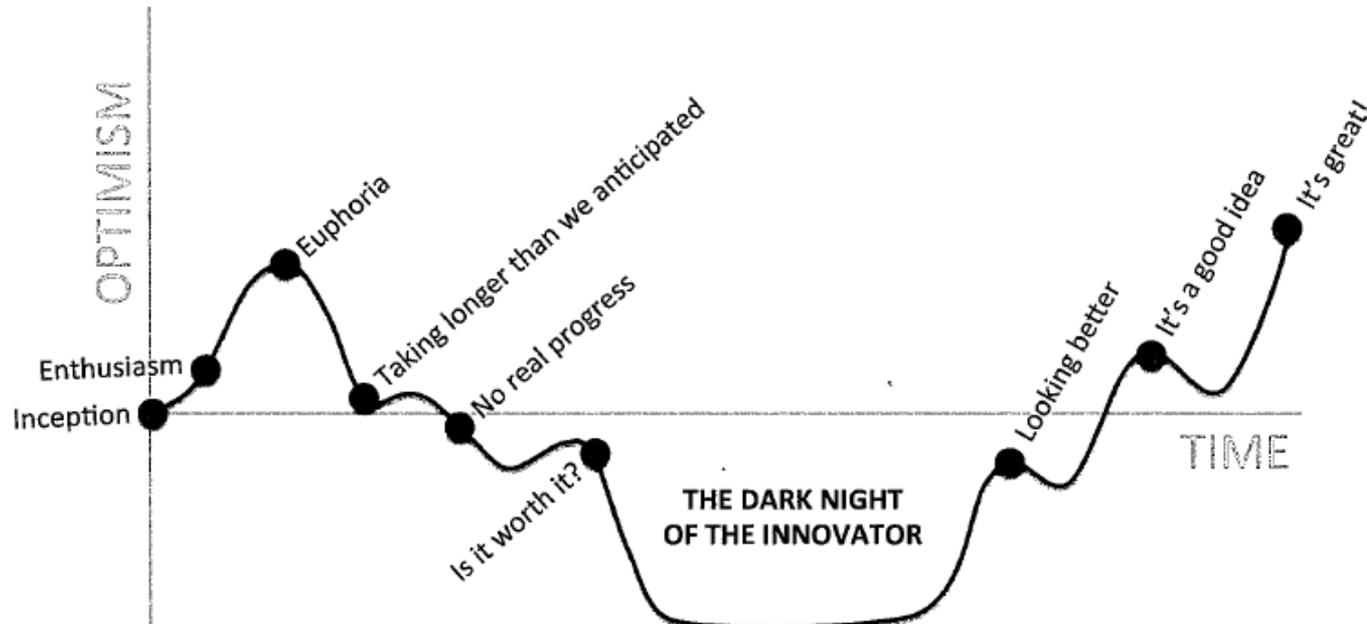
Source: <http://www.cio.gov>

Transformation and Change isn't Easy

The Path of Innovation

Between the idea and the reality falls the shadow

- T.S. Eliot



Source: Jeff Mohr, HCF

Organizational revival depends on the ability to adapt to environmental change

- ▶ “We must become the change we want to see in the world” – Mahatma Gandhi
- ▶ “The journey of a thousand miles begins with a single step” – Lao Tzu
- ▶ “Automating a mess yields an automated mess” – Reengineering the Corporation, by Michael Hammer & James Champy, 1993
- ▶ “Information technology can expect to improve business process about 10%. However, redesigning a process and then adding technology can improve the process up to 90%” – Bill Gates, Business @ the Speed of Thought, 1999
- ▶ “The first rule of any technology used in a business is that automation applied to an efficient operation will magnify the efficiency. The second is that automation applied to an inefficient operation will magnify the inefficiency” – Bill Gates
- ▶ “Not everything that can be counted counts, and not everything that counts can be counted” – Albert Einstein (attributed)
- ▶ “What gets measured gets done, what gets measured and fed back gets done well, what gets rewarded gets repeated” – John E. Jones
- ▶ “The Problem is never how to get new innovative thoughts into your mind, but how to get old ones out” – Dee Hock, Founder and Former CEO of Visa
- ▶ “Innovation distinguishes between a leader and a follower” – Steve Jobs, Apple

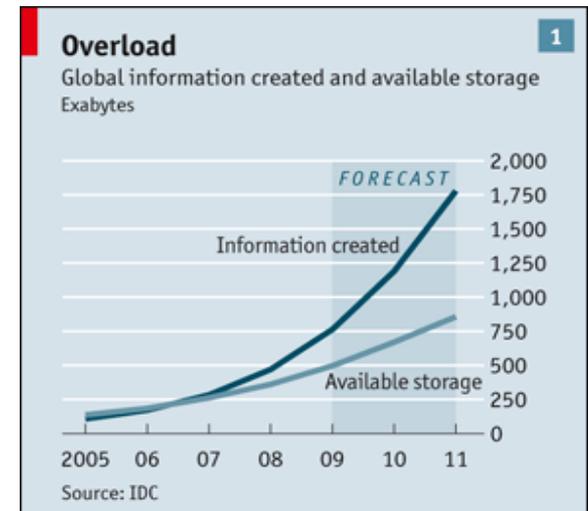
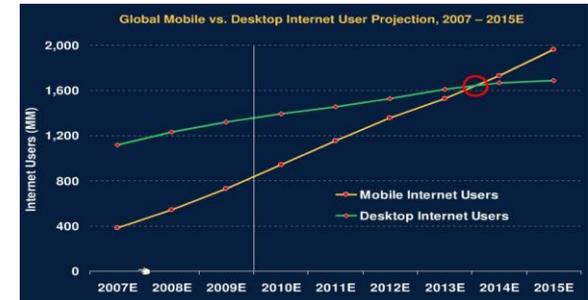
Change is Coming (Like it or Not...)



6 bold tech predictions: Fact or fantasy? FCW (December 8, 2010)

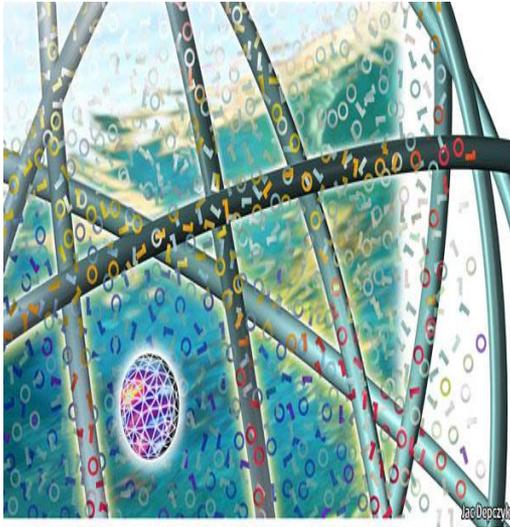
1. 20% of businesses will own no IT assets by 2012 (Gartner)
2. 75% of Stand-Alone IT Departments will disappear by 2015 (Corporate Executive Board)
3. One trillion devices will be connected to the Internet by 2013 (Cisco) – Current = 35B
4. The government can save \$1 trillion in 10 years by harnessing certain proven technologies (Technology CEO Council)
5. 25% of personal computing devices sold will be tablets by 2015 (Forrester Research)
6. Data will grow by 800% in the next five years with 80% Unstructured Text/Media (Gartner)

Mobile will be bigger than desktop internet in 5 years
-- Mary Meeker, Morgan Stanley, April 2010



Volume of digital information increases tenfold every five years & the data is replicated many times over!

Context: Maximum sharing and flow of information and knowledge



- YouTube is now **second largest search engine** in the world
- 1.5 million pieces of content shared **daily** on Facebook
- On-line newspaper readers are **up 30%**
- 250 million visitors **each month** to Myspace, YouTube, and Facebook (*none were around 6 years ago*)
- **Mobile devices** will be world's primary connection tool to the Internet in **2020**

As big an issue *outside* your organization as *within* it

New Updates from Gartner – Access to Anything, Anywhere, Any Time

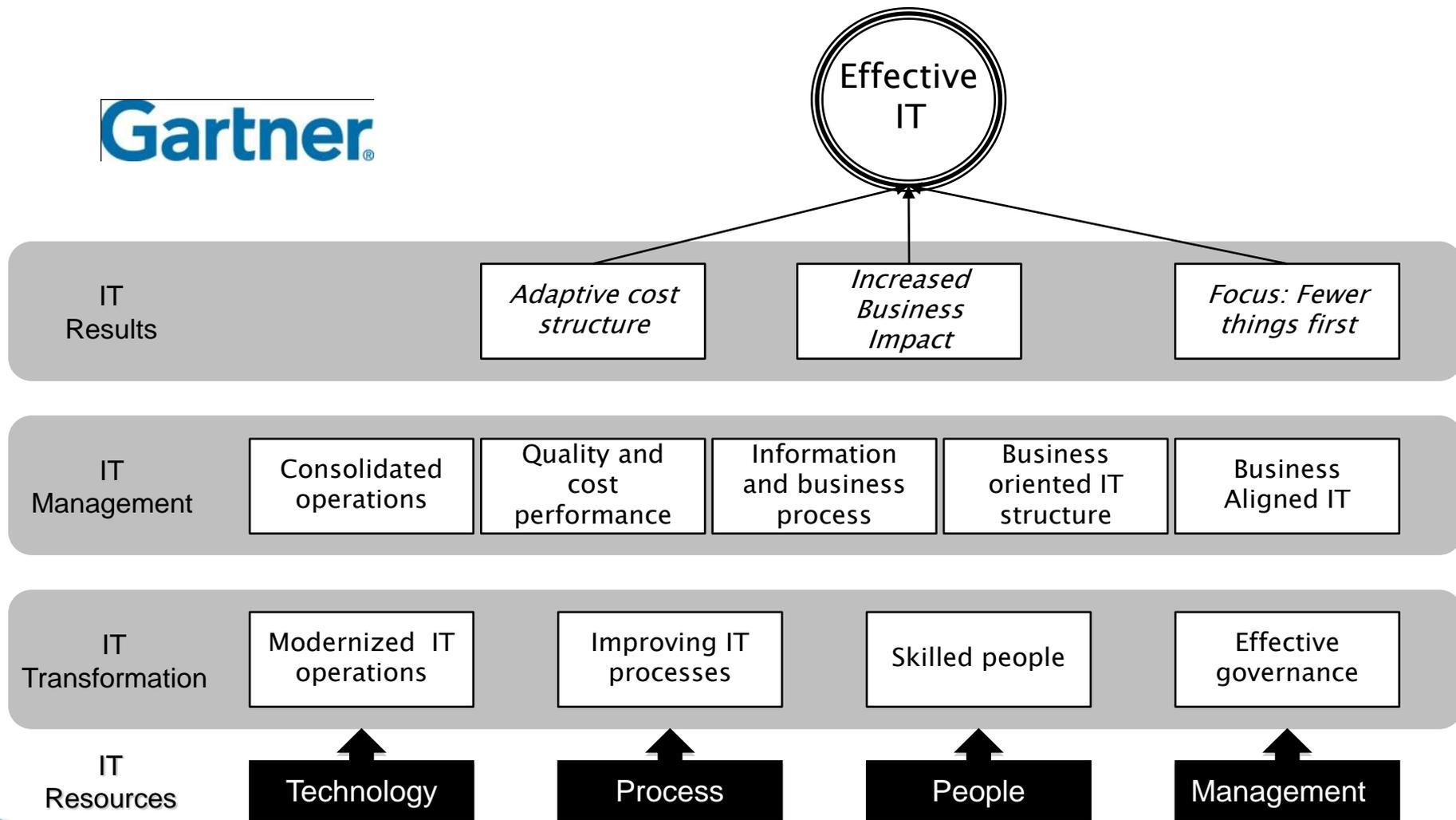
- 1) **30 billion** pieces of content were added to Facebook this past month.
- 2) Worldwide IP Traffic will **quadruple** by 2015.
- 3) Over **107 trillion** emails were sent this year (89% of which were spam).
- 4) **Today's employees can access** 
 - ▶ Over 1 Billion Web pages (and growing)
 - ▶ 350,000 iPhone and Over 100,000 Android Apps
 - ▶ 10,500 Radio Stations, 5,500 magazines, 300+ TV Networks

Source: Top 10 Trends and How They Will Impact Data Centers and IT, David Cappuccio, Vice President, Chief of Research

Future Shock?

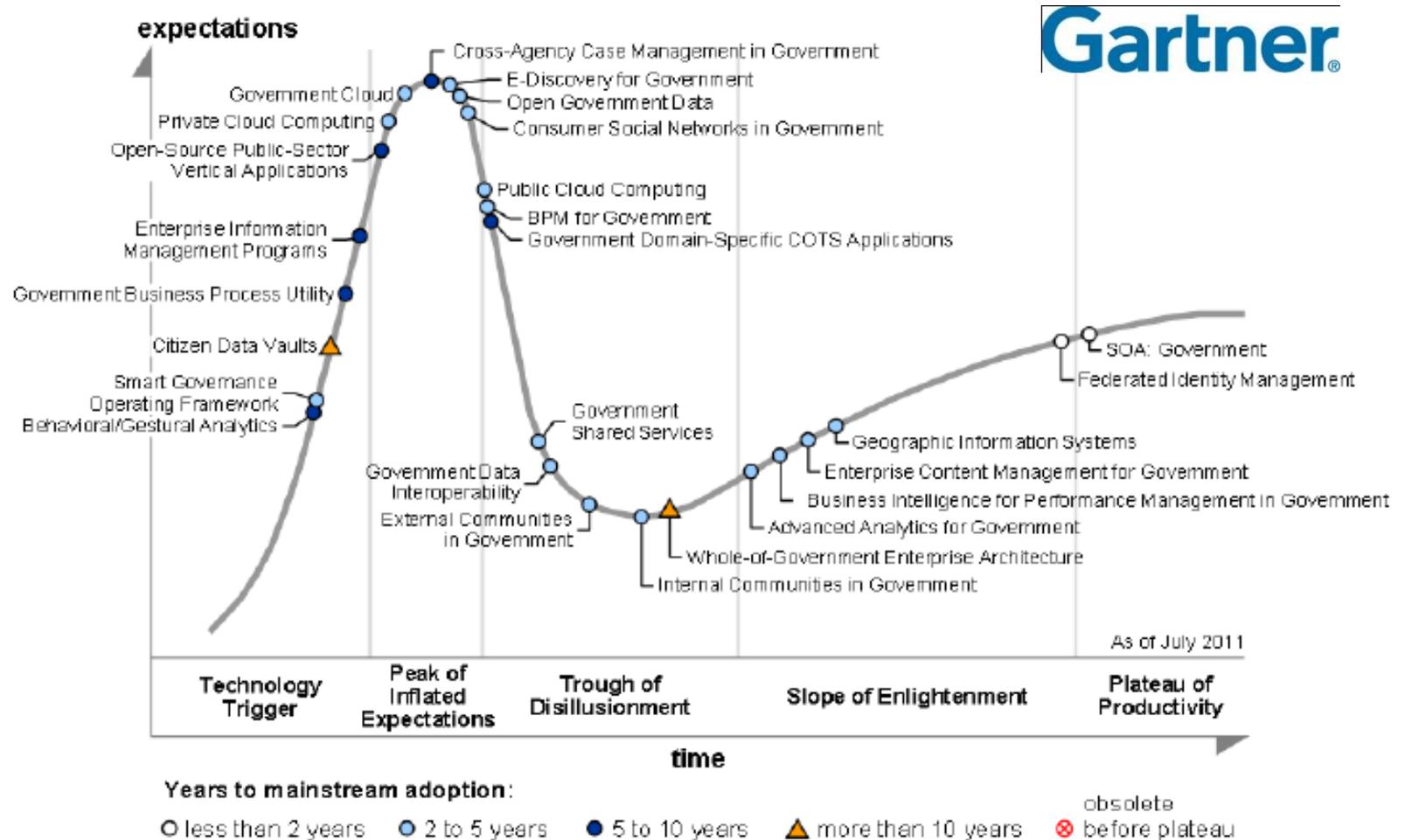
- ▶ “Human knowledge is expected to be doubling by the year 2012” – Alvin Toffler
- ▶ “By 2015 the power of an off-the-shelf computer will exceed the intelligence of that of a human being” – Ian Jakes & Ted McCalu
- ▶ “A medical graduate who graduated 15 years ago has only 1/10 of the original relevant knowledge” – www.mertonline.com
- ▶ “An average of 20,000 new, amended, and changed laws, statutes and ordinances are added to the books of our country’s Federal, State, County, and City legal systems, each month their governing bodies are in session.”
– Bonita Quesinberry, buzzle.com

CIOs build effective IT/IRM through transforming resources and management practices



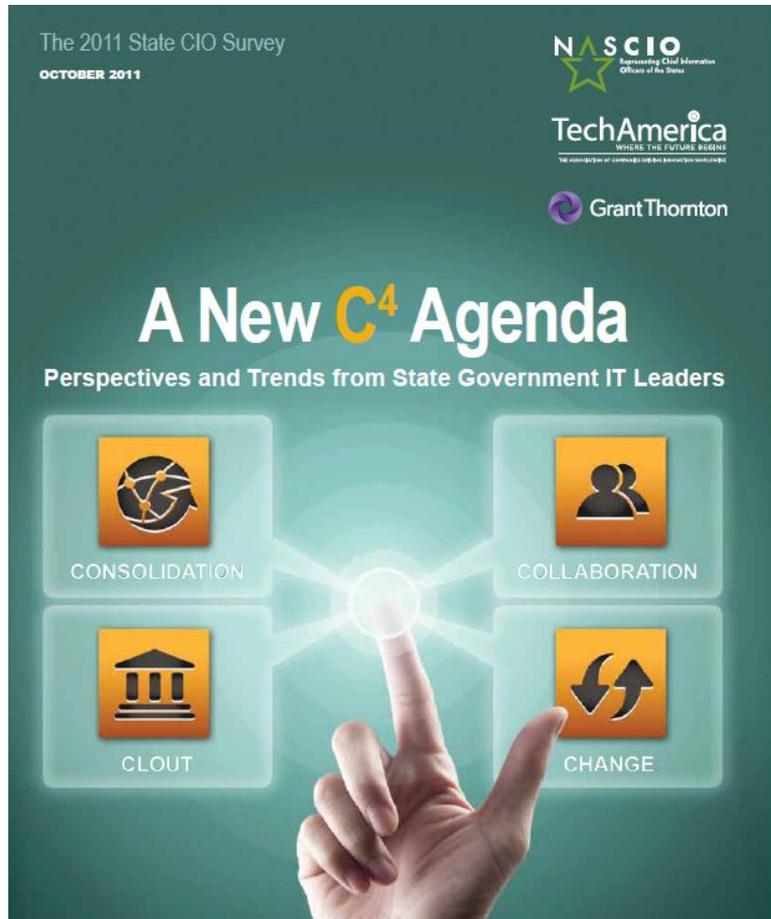
Hype Cycle for Government Transformation, 2011

Figure 1. Hype Cycle for Government Transformation, 2011



Source: Gartner (July 2011)

NASCIO 2011 Survey*



*<http://www.nascio.org/publications/>

39 Questions

- Roles & Governance
- Legislative Affairs & Advocacy
- Financial Management, Funding and Budget
- Collaboration
- Consolidation and Shared Services
- Cloud Computing
- Sourcing Strategies and IT Workforce
- Health Care
- Business Intelligence and Business Analysis
- Mobility

Conclusions

State CIOs are changing

- How they provide services
- The Source and diversity of their revenue streams
- Their relationship with the legislature
- How mobile devices and apps connect citizens to their government

NASCIO Conference (2011)

NASCIO Top Ten Strategy Priorities (2012)

1. Consolidation / Optimization
2. Budget and Cost Control
3. Governance
4. Health Care
5. Cloud Computing
6. Security
7. Broadband and Connectivity
8. Shared Services
9. Portal
10. Mobile Service/Mobility



NASCIO Top Ten Technology Priorities (2012)

1. Virtualization
2. Legacy application modernization/ renovation
3. Cloud computing
4. Mobile workforce technologies
5. Networking
6. Enterprise Resource Management (ERP)
7. Identity and access management
8. Business Intelligence (BI) and Business Analytics (BA) applications
9. Document/Content/Records/E-mail management
10. Public Safety Radio Network

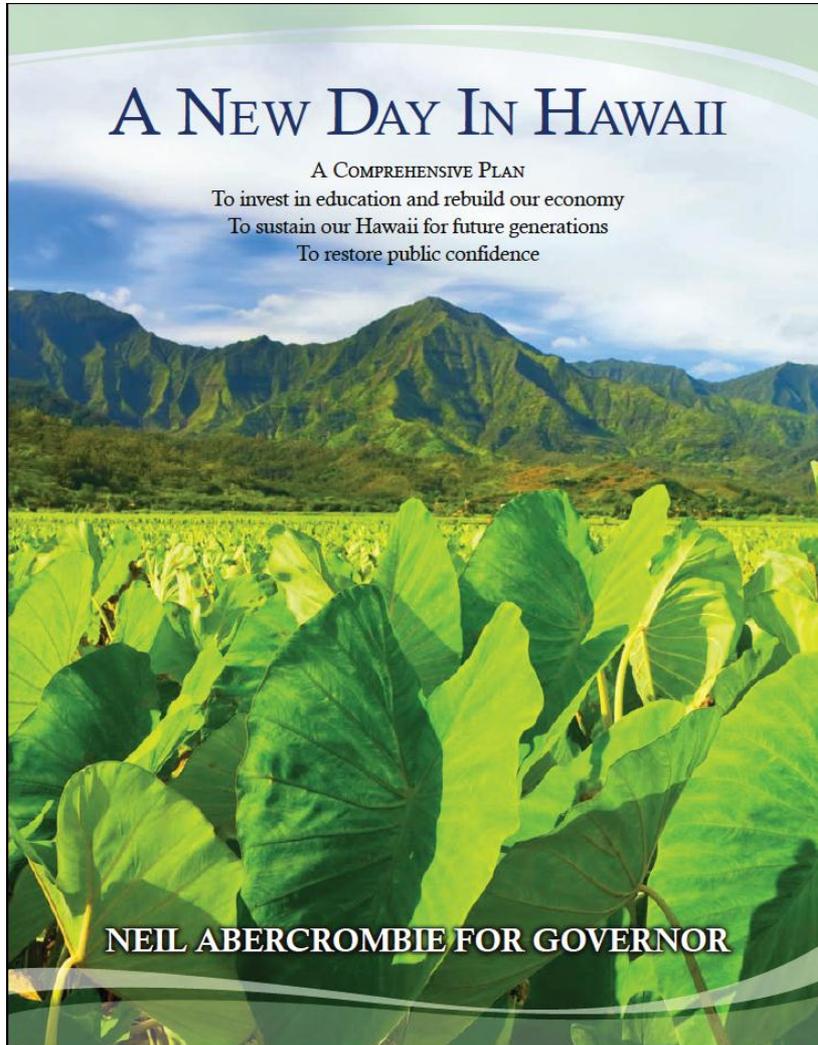
Source: <http://www.nascio.org>

It's not just about Technology....



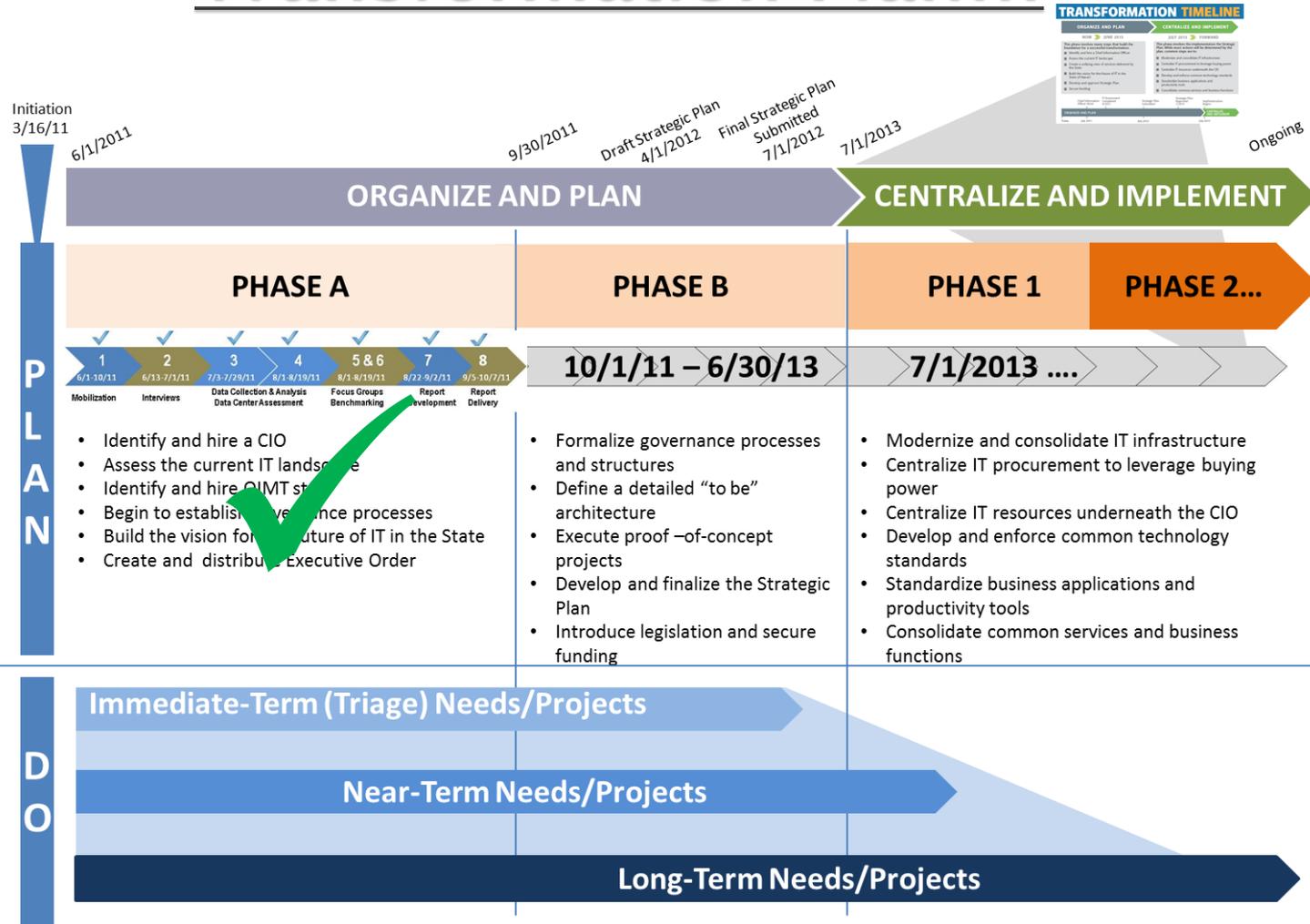
Source: “Real Value from the Cloud: Moving beyond personal productivity”, Center for Digital Government, 2012

The New Day Vision



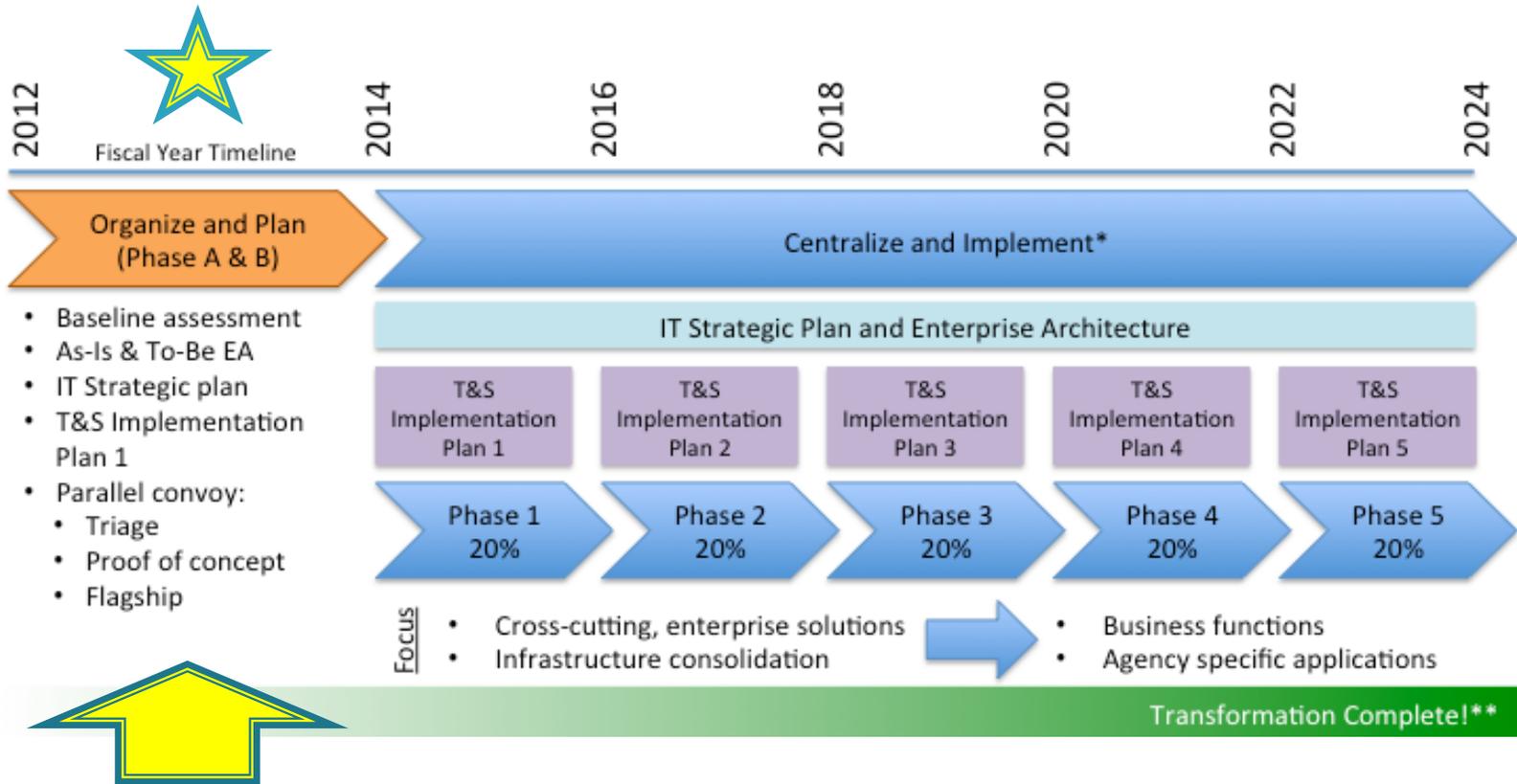
- **GROWING A SUSTAINABLE ECONOMY**
 - New Day Work Projects
 - Renewable Energy
 - Food Security
 - Innovation Economy
 - Improvements on Public Lands
 - Environmental Stewardship
 - Culture, Arts, Creative Industries
- **INVESTING IN PEOPLE**
 - Early Childhood
 - Education and Workforce Development
 - Healthcare Transformation
 - Safety Net, Homelessness, Public Safety
 - Housing
- **TRANSFORMING GOVERNMENT**
 - Information Technology
 - Fiscal Management
 - Operations Management
 - Customer Service
 - Civil Defense and Security

An Integrated, Multi-Year Transformation Plan...



A Seven-Phase, Eleven-Year Plan with delivery along the way

The Transformation Plan



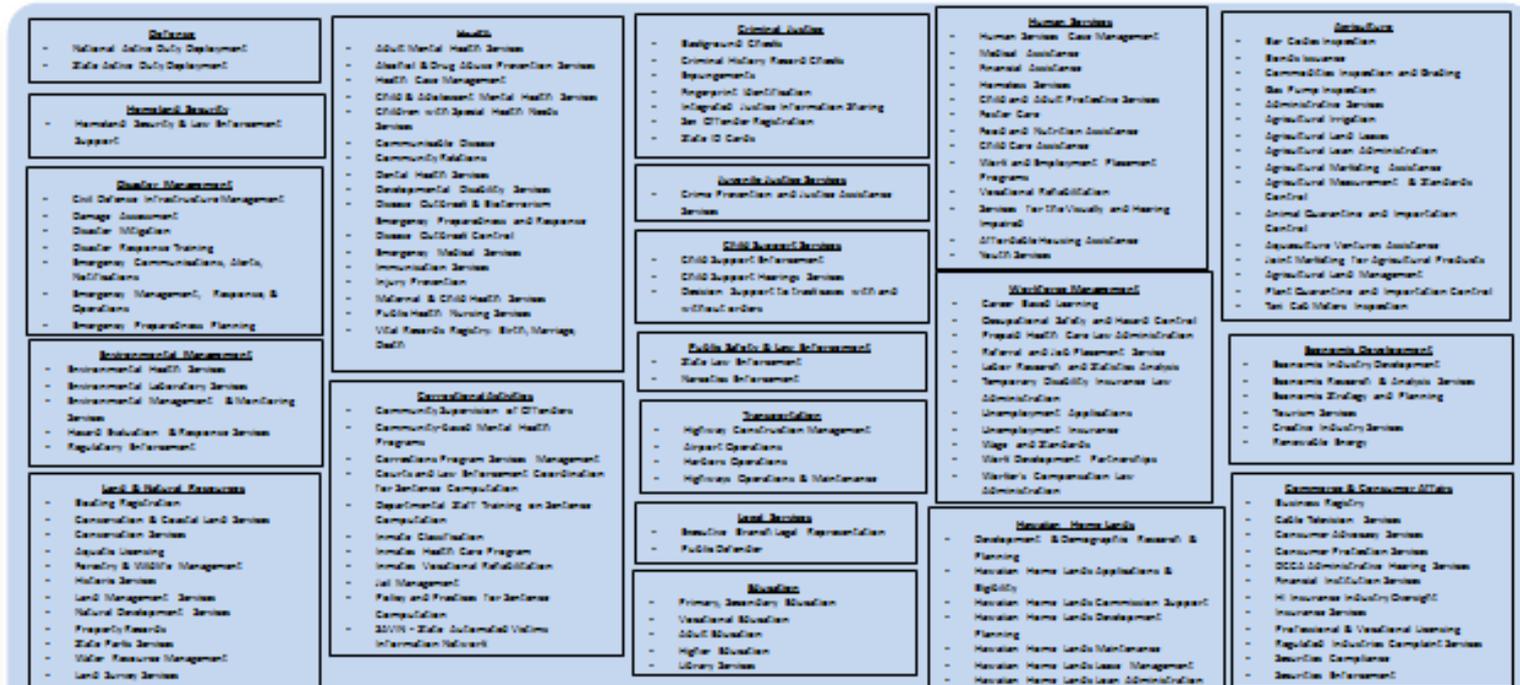
*Successful implementation of Centralize and Implement Phases dependent on funding

**State will pursue continuous improvement and innovation during and after the transformation

A Seven-Phase, Eleven-Year Plan with delivery along the way

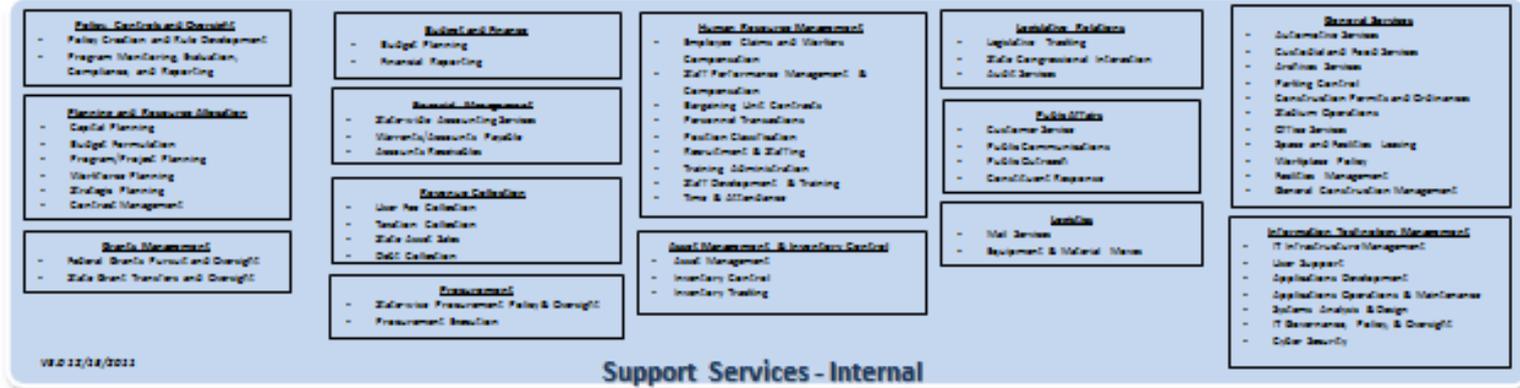
State of Hawaii Business Model

20 Core LOBs
~150 Services



Core State Services (Services for Citizens)

14 Support LOBs
~50 Services

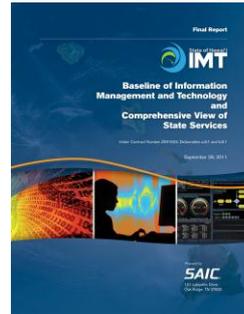


Support Services - Internal

34 Total LOBs
~200 Services

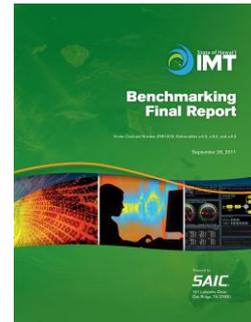
Phase A – Major Deliverables

1) Baseline Report

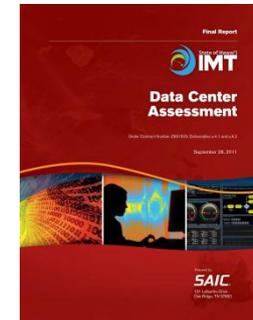


Items 1–3 released in an open, transparent manner to the public

2) Benchmarking Report



3) Data Center Assessment

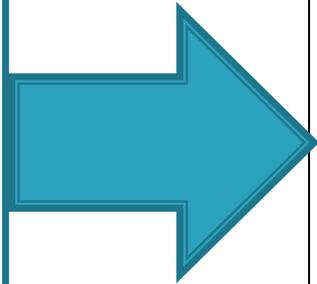
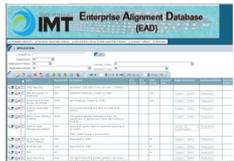
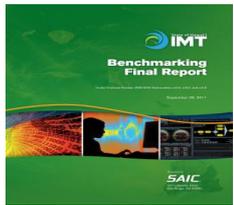


4) Enterprise Alignment Database (EAD) Tool

The screenshot shows a web-based interface for the Enterprise Alignment Database (EAD). It features a search bar, a table with multiple columns and rows of data, and a sidebar with navigation options. The interface is titled 'IMT Enterprise Alignment Database (EAD)'.

High quality work products delivered on time and within budget – Phase A complete!

The Study Found: Top 10 Areas of Opportunity

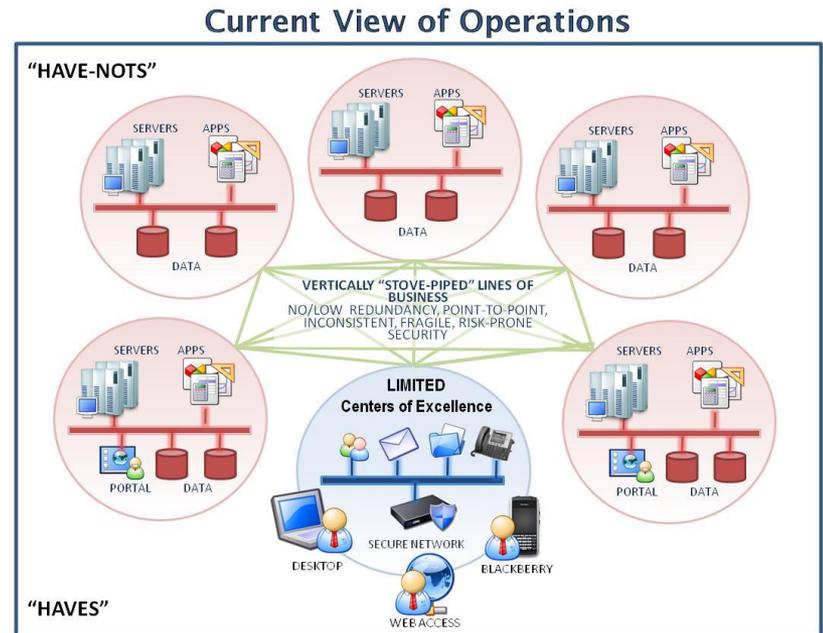


1. Governance
2. Disaster Recovery (DR) and Continuity of Operations (COOP)
3. IT Procurement
4. Security and Privacy
5. Open Government and Social Media
6. Collaboration and Work Flow
7. Enterprise Applications
8. Enterprise Infrastructure
9. Wireless / Mobile / Radio
10. Business Process Re-Engineering

*We are focusing on these
Top 10 opportunities...*

Phase A – Findings

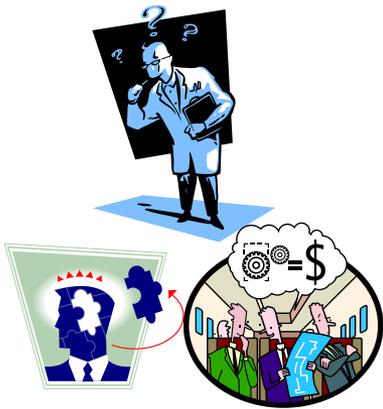
- ▶ 18 Departments & University of Hawaii
- ▶ \$157.5 million IT/IRM budget
- ▶ 746 IT/IRM staff
- ▶ Over 500 applications
- ▶ 200 lines of business
- ▶ High duplication of effort
- ▶ Wide funding disparities
- ▶ Some focused areas of excellence



Many disconnected silos of effort

Started on Four Key Recommendations

1



*Enterprise
Focus for
Projects*

2



*Establish
Enterprise
Governance*

3



*Re-engineer
Business
Processes*

4



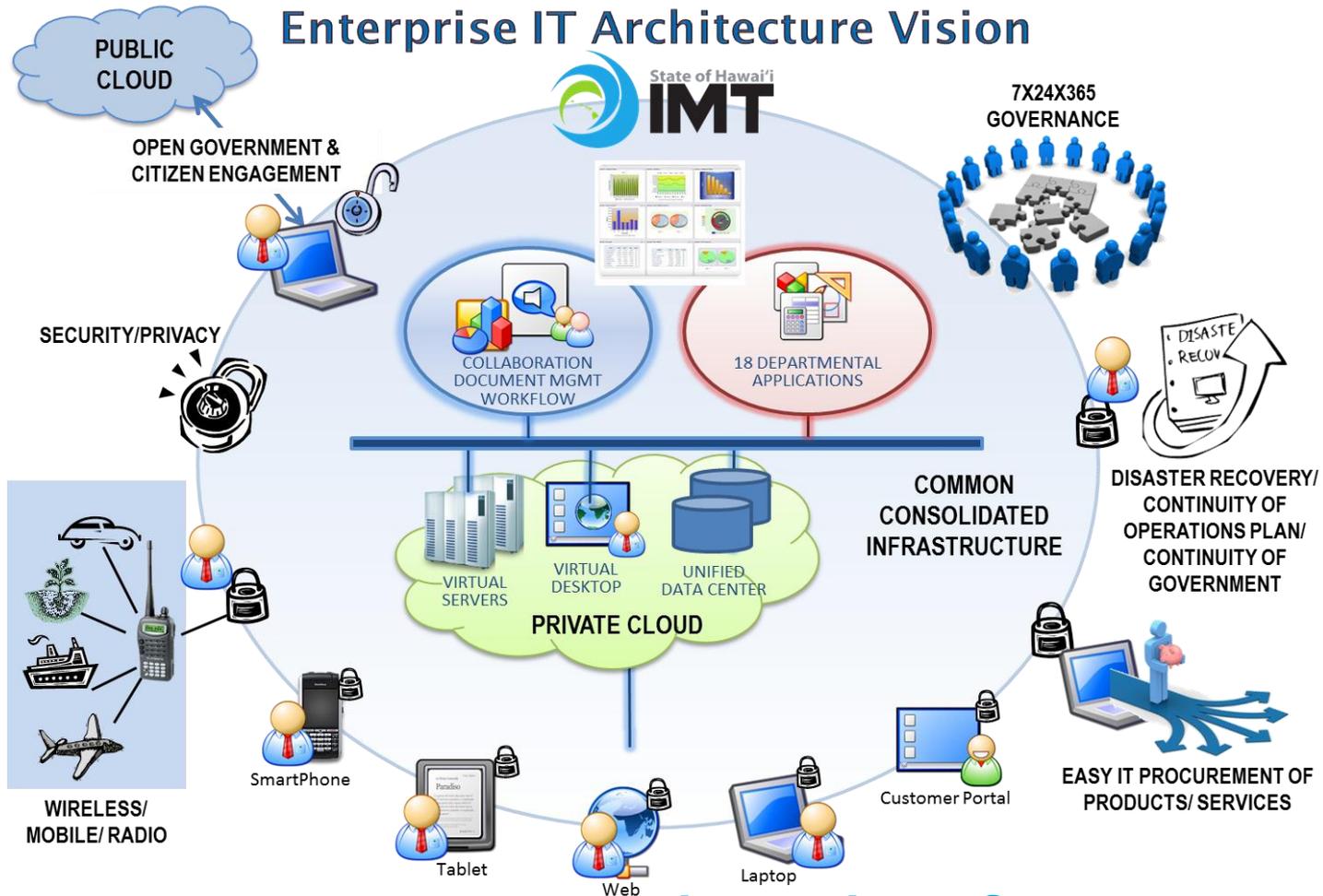
*Strengthen
Technical
Infrastructure*

The Way Forward



Vision

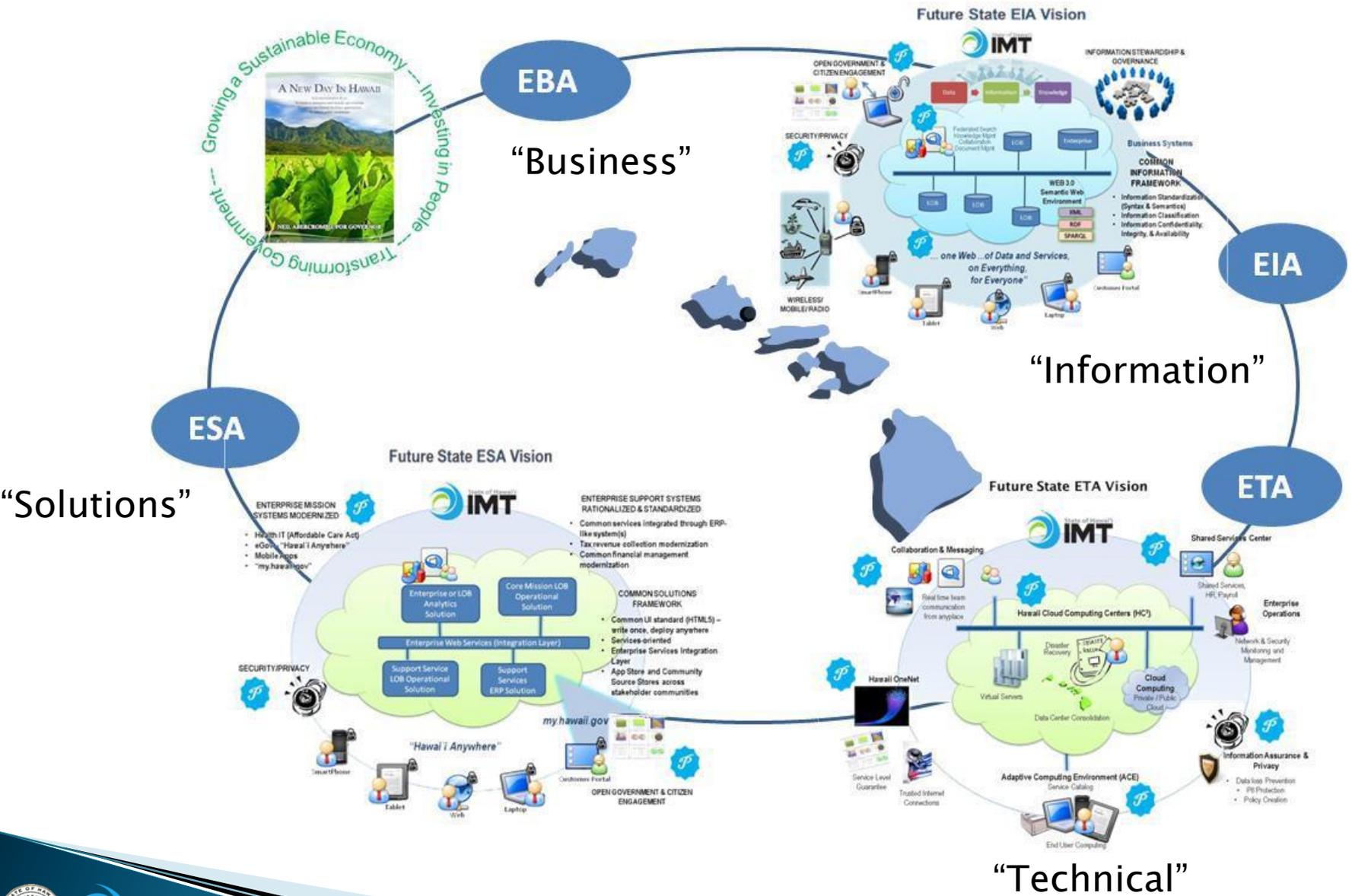
Preliminary Future Enterprise IT Architecture Vision



*Access to the right information –
anywhere, any time, any mission,
securely and reliably*

Enterprise Architecture

Future State Vision for the State of Hawai'i





1 Management and Oversight (Governance)
 State of Hawai`i Business and IT/IRM
 Transformation Strategic Plan



Enterprise Architecture



Business Process Reengineering



The Open Government Initiative



Transparency promotes accountability

Participation allows people to contribute ideas/expertise; government benefits from broad knowledge sharing

Collaboration encourages cooperation within government and with industry



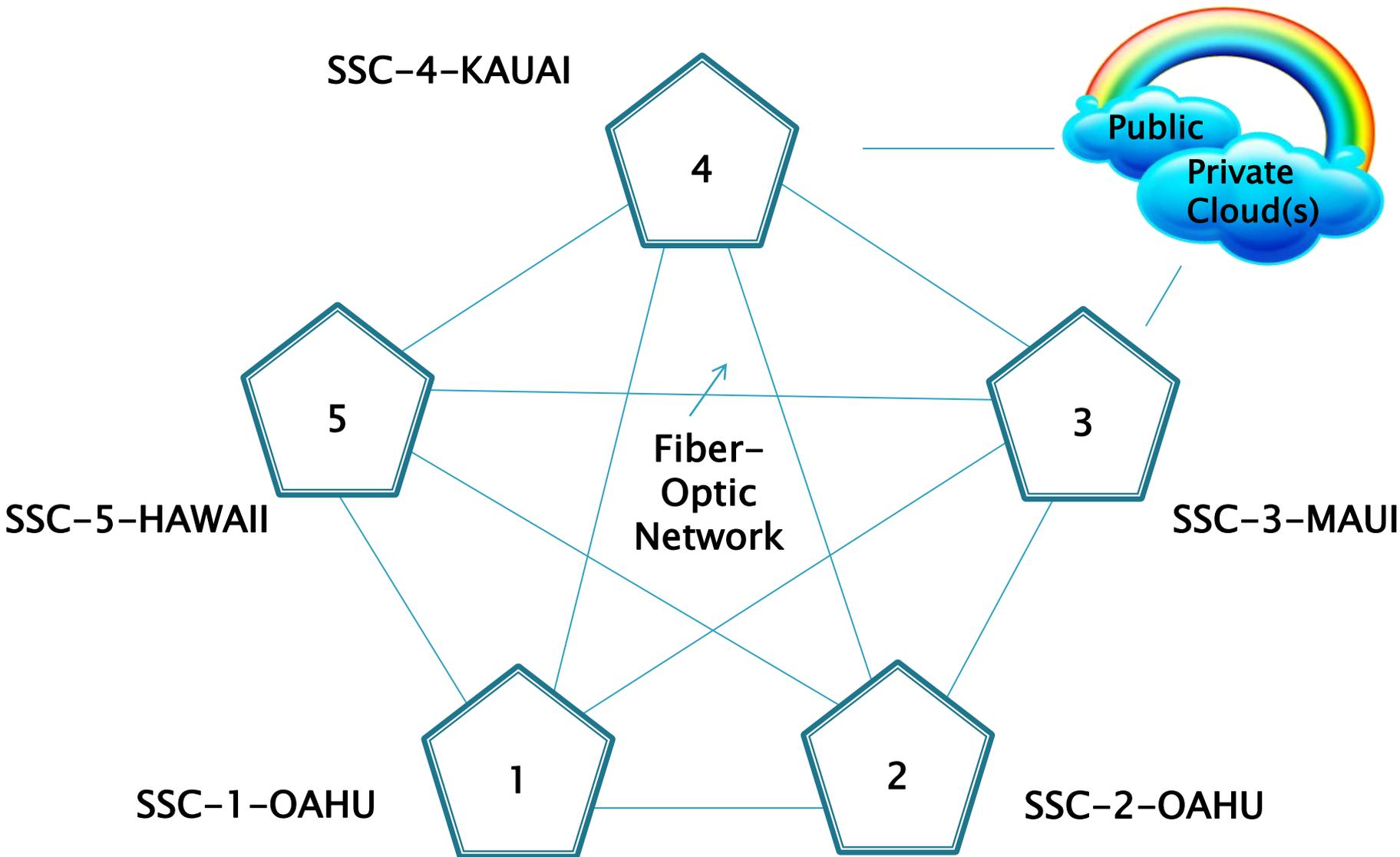
An Innovation Agenda* defines the building blocks of innovation



- Open Government
- +
- Partnerships
 - Entrepreneurship
 - Prizes, Challenges, and Grants
 - Idea Generation
 - Innovative Science & Technology
 - Creative Funding Strategies
 - Promoting Competitive Markets

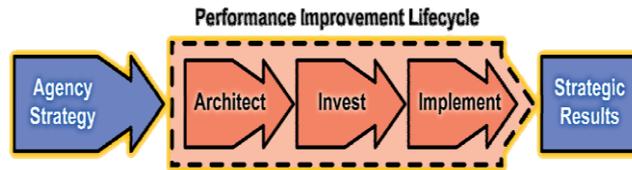
* *“A Strategy for American Innovation”, published Sept 2009*

Hawaii Shared Services Center Vision (Notional)



Shared Service Center (SSC) =
Data Center (DC) + Cyber Security Operations Center (CSOC) + Network
Operations Center (NOC) + Services Center (SC)

The Crossroads...



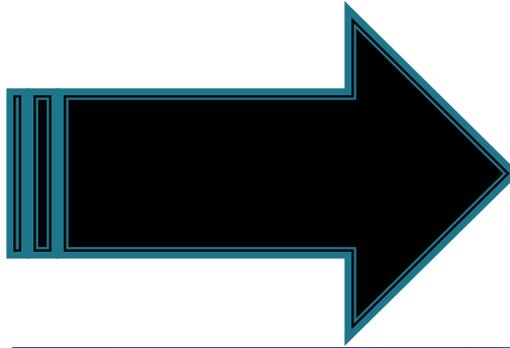
**Stove-Piped,
Sub-optimized,
IRM and IT
Environment
(Today)**



**Geo-enabled,
Integrated,
Mobile,
Transparent, Web-
Accessible, Open,
Standards-based,
Agile,
Reliable,
Available, Secure
Enterprise
Information and IT
Environment
(Goal)**

**We are at a Crossroad in History –
Let's Choose the Pathway to Success!**

“The Best Way to Predict the Future is to Invent it”* ...Let’s Go!



***Source:**
Alan Kay, Stanford
Peter F. Drucker



State of Hawai'i
IMT



INNOVATION
SUCCESS
EVALUATION
DEVELOPMENT
GROWTH
SOLUTION
PROGRESS
MARKETING



Mahalo!

<http://www.hawaii.gov/oimt>